

ANODA HENRICKSONII (MALVACEAE), NEW SPECIES FROM THE

SOUTHERN CHIHUAHUAN DESERT REGION

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In compiling a treatment of Malvaceae for the Chihuahuan Desert Flora, Stuart Kendall Strong and I have been the deeply grateful recipients of contributions of treatments for several genera from acknowledged specialists and experts in this family including especially Paul A. Fryxell and David M. Bates. Several genera appearing under our names are actually excerpted from recently published treatments by Dr. Fryxell, whose revision of the Malvaceae of Mexico is apparently in an advanced state of completion. One taxonomically difficult genus, Anoda Cav. has for several years been under careful and thorough study by Dr. Bates. It would of course be preferable that a consideration of the taxonomic placement and merits of the taxa of Anoda in the Chihuahuan Desert Region be presented in the context of a complete, mature monograph. But since it appears that Dr. Bates' study will not be complete for some time to come, perhaps a matter of years, it devolves upon me to provide a name for a taxon from the Chihuahuan Desert Region that appears to be quite distinct.

ANODA HENRICKSONII M. C. Johnst., sp. nov. A A. cristata basi forte perenni, laminis foliorum cordatis, caulibus foliis calycibus ovariisque stellato-hirsutulis, carpellis 10 differt; a A. wrightii basi valde perenni, petalis non flavis, pericarpis dorsaliter subscariosis differt.

ANODA HENRICKSONII M. C. Johnst., new sp. Perennial herbs ca 4.5 dm tall, root-crown woody, ca 1 cm thick; stems branched especially in lower half, stems sparsely or in upper part densely stellate-hirsutulous, the erect radii 0.2-0.3 mm long, mixed with a few simple hairs 0.2-0.3 mm long. Leaf-blades hastate-deltoid or the upper ones hastate-lanceolate, (2.5-)3-6 cm long, (1.5-)2-3.5(-5) cm wide, deeply cordate at base, acute at tip, coarsely to minutely antrorse-serrate, paler beneath than above partly owing to denser pubescence; petioles finely stellate-hirsutulous, (2-)3-4(-4.5) cm long. Pedicels (2-)3-4 cm long in flower, (3.5-)4-6 cm long in fruit, filiform, joined ca 5 mm below calyx; calyx externally densely stellate-hirsutulous or finely stellate-tomentose, 9-12 mm long, very deeply 5-lobed, lobes lance-oblong, abruptly acuminate to a fine point, eventually (in fruit) the limb flattish and the lobes more or less involute; petals obovate, (13-)14-17 mm long, "pink" or "pink-lavender" when fresh, when dry pale violet grading to whitish at base; androecium included; ovary densely stellate-hirsutulous. Fruit (slightly immature, from Henrickson 13305) depressed, disk-like about a third as high as wide, almost as broad as calyx-limb, on top finely and densely stellate-hirsutulous, with 10 mericarps, each mericarp at junction of flat top and rounded dorsum with a more or less horizontal acute peripheral projection ca 1.5 mm long, with the pericarp firm, chartaceous, at the top with chevron-patterned thickening, at the dorsum becoming thin and subscarious with a single thick midvein, the endocarp vanishingly or tissue-paper thin and represented only as a scarcely discernible external layer of the minutely roughened seed.

MEXICO, Zacatecas, Sierra del Astillero, 24°37' N., 101°8' W., small ravine northwest of summit, with Clematis, Acacia, Sicyos, Aloysia, Opuntia, etc., 2000 meters, "infrequent", 22 Sept. 1973, James Henrickson 13305 (LL, unicate, holotype); Zacatecas, Pico de Teyra, 24°34'N., 102°11' W., northwest slope, ravine, with Fouquieria, Yucca, Dalea, Opuntia, Mimosa, Prosopis, etc., 2050 meters, 23 Sept. 1973, Henrickson 13405b (LL, unicate).

*Anoda henricksonii* seems to be related to *A. cristata* (L.) Schlecht. in the depressed, disk-like fruit, the exceedingly thin endocarp adherent to the seed, the subscarious pericarp-dorsum, and the non-yellow petals; it differs notably in the strong, perennial base, the cordate leaf-blades, and the vestiture of the stems, leaves, calyx and ovary, and the unique thickening pattern of the pericarp-top. The new species may also be compared to *A. wrightii* Gray whose vestiture is probably very similar and whose leaf-blades are similarly cordate, but *A. wrightii* comprises annual herbs with mostly orange-yellow petals and a peculiar reticulate thickening of the pericarp-dorsum.

The new species comes from a very poorly collected region in northern Zacatecas, where several mountain-ranges remain essentially wholly unknown botanically. Dr. Henrickson was the first and last botanist to explore the Pico de Teyra, an isolated igneous mass badly disturbed by goat-browse and the only known locality for the recently described *Thalictrum henricksonii* M. C. Johnst. and other endemic taxa. His was the second botanical foray to enter the Sierra del Astillero, a massive mostly calcareous range with moderately high vegetational integrity, a range that still promises to yield much of interest to the thorough explorer.